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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,840	02/25/2004	Shoji Ikeda		2955

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EXAMINER
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BERNATZ, KEVIN M

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/786,840

Applicant(s)

IKEDA ET AL.

Examiner

Kevin M. Bernatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Examiner's Comments*

1. Following is a specie restriction on the pending claims in the current application. In addition, the Examiner notes that there are several 112 issues that are present in the pending claims which might expedite prosecution if they are addressed prior to an action on the merits of the case. Specifically, the following issues were observed by the Examiner while preparing the specie restriction:

- In claim 1, do applicants mean "anisotropy" magnetic field or "saturated" magnetic field? (see spec. page 5 versus spec. page 9). The Examiner notes that the units appear to be associated with a coercive force, which would imply the latter;
- In all the claims, the language "for a magnetic head" is intended use and will not limit the claims to magnetic head applications. Applicants are advised to amended the preamble of the claims to "A magnetic head comprising a magnetic film comprising:" to better clarify the claimed invention (but see below);
- The language "a magnetic film ... comprising a nonmagnetic layer" is confusing since a *magnetic* film technically cannot comprise a *nonmagnetic* layer. A clearer way to claim the invention might be to claim the magnetic "film" as a magnetic "film laminate";

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- The language  $\pm 0.5$  GPa or less is confusing since that is actually reciting  $< +0.5$  GPa and  $< -0.5$  GPa, but  $-0.5$  GPa is already less than  $+0.5$  GPa. If applicants mean a range of  $+0.5$  GPa to  $-0.5$  GPa, applicants are suggested to use the language of "is in a range of  $\pm 0.5$  GPa" or something similar;
- The language "between the boundary parts" in claim 5 lacks antecedent basis since only a single boundary part is claimed. It appears that applicants intended to recite that the magnetic and nonmagnetic layers are alternately piled (per claim 3), but this language is not recited in claim 5. Furthermore, the Examiner notes that a uniform concentration of Fe of 40 – 65 at% would still read on the claims since claim 5 does not require that the concentration in the boundary region does not equal the concentration in the intermediate part (the Examiner notes that this may be the intent of the claim, however);
- Claim 13 recites the ratio of  $I(211)/I(110)$  being equal to "2 – 100%". This is unclear because percents are not calculated as a simple ratio. Do applicants mean that  $I(211)$  is 2 – 100 times the value of  $I(110)$  or that  $I(211)$  is 0.2 – 1 time (i.e. 2 – 100% of) the value of  $I(110)$ . Presently, the claim is indefinite since it's unclear what scope is being claimed; and
- The Examiner noted at least one typographical error in the specification (page 6, line 10 "coercivit" instead of "coercivity"). Applicants are encouraged to proof the rest of the specification to insure that there are no additional errors.

***Election/Restrictions***

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1) a magnetic film comprising at least one nonmagnetic layer and a magnetic layer including Fe and Co;

Species 2) a magnetic film comprising a nonmagnetic layer with 2+ layers and a magnetic layer including Fe and Co and possessing a boundary and internal region;

Species 3) a magnetic film including Fe and Co with a bcc structure and a specified I(211)/I(110) ratio.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. No telephone call was made to applicants due to the complexity of the restriction requirement. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

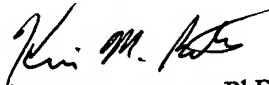
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMB  
October 28, 2005

  
Kevin M. Bernatz, PhD  
Primary Examiner